Geological Society of Australia Tasmania Division

October 2023

The Tasmanian Geologist

Next Meeting: Martin Jutzeler will recount **Highlights from the RV** Investigator Voyage off the west coast of Tasmania

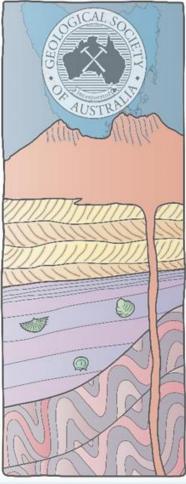


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Our Next Meeting is Thursday 19th October 6:00PM Geology Lecture Theatre, University of Tasmania. Nibbles from 5:30 PM.

Subglacial hydrology, geology and geomorphology (Subice) Workshop

The 'Subice Workshop' brought together a multidisciplinary group focused on modelling and constraining properties at the bottom of ice sheets from around the world. As well as presentation sessions and activities, participants were treated to two field trips to Mt Field and the Maydena area looking at glacierrelated geomorphology and deposits.



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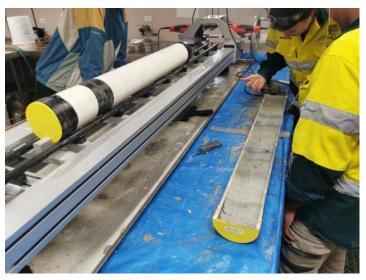
30th November Tasmanian Geoscience Forum Tullah

Highlights from the RV Investigator Voyage off the west coast of Tasmania

Dr Martin Jutzeler is a volcanologist, sedimentologist and Senior Research Fellow at the University of Tasmania (UTAS). Martin started his studies at the University of Lausanne (Switzerland), where he obtained a BSc, followed by a MSc in volcanology. He then spent some time climbing active volcanoes in Mexico before starting his PhD on submarine volcanism at the University of Tasmania with Jocelyn McPhie and Sharon Allen. His post-doctoral projects were based at the University of Otago (New Zealand) and at the UK National Oceanography Centre in Southampton. Martin came back to Tasmania for a lectureship contract followed by a post-doc on image analysis and volcanic facies reconstruction in mineralised terrains. Martin's research focusses on eruption and sedimentation of volcanic material in water using experiments, satellite imagery as well as samples and data from modern and ancient volcanic successions. Outputs of his research in submarine volcanism improve our knowledge of volcanic architecture and natural hazards. Martin led the RV Investigator 'Vulka-22' voyage to the Kermadec Arc in 2022 and earlier this year was Chief Scientist for the RV Investigator voyage off western Tasmania, which is the focus of his presentation.



Martin Jutzeler. Photo by K. Orth



Core processing supplied by M. Jutzeler.

In March-April 2023, we carried out a multidisciplinary voyage offshore southwest Tasmania on the CSIRO Research Vessel RV Investigator. We conducted seismic reflection surveys, deep-towed camera, CTD casts, and recovered multiple piston cores and dredges from the seabed, all providing a trove of information on the shallow to deep marine systems offshore southwest Tasmania. The main target of the voyage was a gigantic and exceptionally well exposed submarine landslide. We surveyed the surface and sub-surface of the landslide scar and deposits to study how, when and why this In March-April 2023, we carried out a multidisciplinary voyage offshore southwest Tasmania on the CSIRO Research Vessel RV Investigator. We conducted seismic reflection surveys, deep-towed camera, CTD casts, and recovered multiple piston cores and dredges from the seabed, all providing a trove of information on the shallow to deep marine systems offshore southwest Tasmania. The main target of the voyage was a gigantic and exceptionally well exposed submarine landslide. We surveyed the surface and sub-surface of the landslide scar and deposits to study how, when and why this event happened. We collected datasets that will enable to model mechanisms of shelf failure, sediment transport to the deep sea and tsunami initiation. This study will allow to assess whether there are risks for further landslides in this area and to inform whether other continental margins are at risk to experience similar mass wasting scenario in the future. Throughout the voyage, we mapped an area corresponding to about a third of onland Tasmania, highlighting exceptional seafloor features. In addition, this voyage surveyed the continental shelf to map the offshore continuation of onland rock formations and their suture zones, dredged continental rocks associated with the opening of the Gondwana, assessed ocean upwelling and nutrient input in the ocean waters on the Tasmanian shelf, identified biological habitat zones, assessed the impact of trawling on seabed habitats, and established a baseline survey of sea bird occurrence. In addition, the MV Blythe Star shipwreck (1973) was surveyed for formal identification.



Aurora australis viewed on the ship. Supplied by M. Jutzeler.

Blythe Star. Supplied by M. Jutzeler.

I want to zoom into the meeting

Workshop on Subglacial Hydrology, Geology and Geomorphology October 10th to 12th, Maydena

An international cohort of researchers in the fields of hydrology, glacial science, geo-



View over U-shaped valley containing Lake Seal and the Broad River. Photo K. Orth



Dolerite blockstream beside Lake Dobson Road. Photo K. Orth in 2024. Thanks to Tobias Staal and helpers for organising an excellent workshop.

morphology, geophysics and ice sheet modelling descended on Tasmania to collaborate, listen to the latest science, discuss future plans and enjoy Maydena and surrounds between the 10th and 12th of October. The 32 delegates included many of our local community from UTAS Natural Sciences, IMAS and ACEAS as well as colleagues from elsewhere in Australia the USA. Europe and Canada. The sessions were augmented by two field trips on glacial geomorphology and glacial deposits led by Nick Roberts from Mineral Resources Tasmania. The first to Mt Field highlighted the spectacular landscape carved into the bedrock dolerite by alpine glaciers. The second excursion was to road cuttings on the Gordon River Road near Maydena with lowland glacial features including lacustrine and till deposits. There was also a stop in Permian tillite. Nick may be persuaded to provide a GSA field trip



Pinkish lacustrine sediment near participants is overlain by till which is weathering out of the road cutting. Gordon River Road. Photo K. Orth





Nick cleaning up some of the pinkish lacustrine sediment to reveal laminae. Gordon River Road. Photo K. Orth

Permian tillite near Maydena . Photo K.

What is the GSA Endowment Fund?

The Geological Society of Australia (GSA) Endowment Fund was set up in 2007 to support students undertaking graduate studies in the Earth Sciences. The fund was set up as a separate entity to the GSA and the Australian Tax Office imposed elements that restricted this support to Australian students at Australian educational institutions. Financial assistance in the form of awards can be granted to Australian students by the GSA Endowment Fund Committee and the awards are not restricted to GSA members. Honours/ Masters student from each state are eligible for a \$1000 grant and PhD students compete nationally for a \$5000 grant.

The Geological Society of Australia Endowment Fund is a charity and all donations are tax deductible. (from GSA website)

Student Members

Hello student members. No doubt you are near the end of second semester. This will be a busy time, but we hope some of you can make it to Martin's talk and pre-talk nibbles on Thursday the 19th of October.

Membership

There are also special rates for graduate membership so no need to miss out once you have graduated. We would love to keep in touch! Any queries about your membership contact our membership officer Rebecca Carey (Rebecca.Carey@utas.edu.au).

You can become a member right now

I want to become a Member

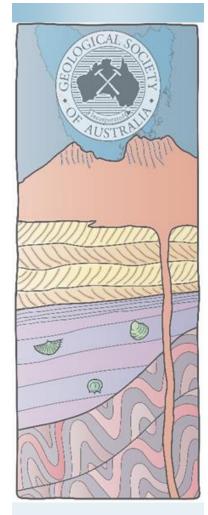
Meet a graduate

Olivia Wilson won the Honours Endowment Scholarship for Tasmania in her honours year in in 2020. Despite the lockdowns of that year, she eventually managed to get into the field to spend her money. Olivia is now employed by Entura in Hobart. She was an undergraduate member of the GSA and here is her testament to how it can be helpful for your future.

"Being a student member of the Geological Society of Australia enriched my experience of studying geology."



Supplied by Olivia Wilson



Olivia Wilson on being a GSA student member

'Being a student member of the Geological Society of Australia enriched my experience of studying geology. Especially important to me were the opportunities to make connections and learn about the research of other society members. As a student, it is also invaluable to have an environment in which you can interact with geoscientists from all career stages - hearing their experiences allows you to develop your own career aspirations. GSA membership also demonstrates that you have a level of passion and commitment to your field beyond '

Other Events coming up

13th Tasmanian Geoscience Forum Tullah 30th of November See flyer attached

The Geological Evolution of Tasmania

The flagship publication of the Tasmanian Division of the GSA, 'The Geological Evolution of Tasmania' (Special Publication 24 of the GSA) is available for ordering.

I want to know more about the book

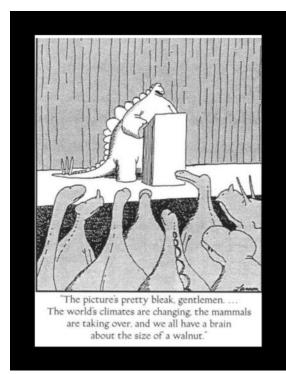
You can purchase them personally from Caroline Mordant (<u>publications@CODES.utas.edu.au</u> or phone on +61 3 6226 7537.

Members	\$99
Non Members	\$113
Students	\$75



edited by Kellh D. Corbell, Patrick G. Quilty and Cive R. Calver

Last word from Noel



OCTOBER MEETING

19th October Thursday Martin Jutzeler Highlights from the RV Investigator Voyage off the west coast of Tasmania. Geology Lecture Theatre University of Tasmania

Our details

Geological Society of Australia website: www.gsa.org

And our own website: http://

GSA Tasmania Division Committee 2023-2024

Chair: Karin Orth Secretary: Ron Berry Ron.Berry@utas.edu.au

Treasurer: Claire Kain Committee Members: Sheree Armistead Jeremy Asimus Rebecca Carey (Membership) Acacia Clark (Student Rep) Grace Cumming John Everard Matt Ferguson Barbara Frankel Jacqueline Halpin Claire Kain (Geotourism) Peter McGoldrick Hannah Moore Owen Missen Sebastien Meffre

ANY NEWS, ANNOUNCEMENTS OR INTERESTING PHOTOGRAPHS OF TASMANIAN GEOLOGY YOU WOULD LIKE TO INCLUDE IN THE NEXT NEWSLETTER, PLEASE

SEND IT THROUGH VIA EMAIL TO karin.orth@utas.edu.au



The 13th Annual Tasmanian Geoscience Forum

To be held at Tullah, Tasmania on Thursday, 30th November 2023 Register to attend and Expressions of Interest for Speakers & Sponsors

Seminar Overview

The AusIMM Tasmania Branch, GSA, AIG and Mineral Resources Tasmania are pleased to bring you the 13th Geoscience Forum. The purpose of this forum is to gather geoscientists in one pleasant place to share their progress in exploration, mining and research.

This event is for sharing geologically focused results and ideas and for learning more about geology, in particular the geology of Tasmania.

https://www.ausimm.com/conferences-and-events/community-events-details/tasmania-branch-geoscience-forum/

This year we will have improved AV - so better vision and sound for our guests.

Expressions of Interest for Guest Speakers

Please email Sheree Armistead if you have any suggestions for speakers.

Email Sheree.Armistead@utas.edu.au

Field Trips Friday, 1st December 2023 Organised by the AIG and GSA

Field trips are planned the day after the Forum to visit historic and geological sites of interest.

Sponsorship Opportunities

We welcome sponsors to assist in this event. Display tables will be available at the venue. Contact John Stanton to become a sponsor.

Event Details and Location

Date: Thursday, 30th November 2023

Time: 9.00am – 5.00pm Forum 7.00pm Forum Dinner

Location: Tullah Lakeside Lodge 56 Farrell St, Tullah 7321, Tasmania

Registrations

Registrations now open for 2023- Click on link to register <u>https://ausimm.eventsair.com/39301-tasmania-branch-2023/the-13th-annual-geoscience-forum-geobash</u>

2023 registration rates are as follows.

Member rates are applicable to AusIMM, GSA or AIG members.

Combined seminar and dinner Member \$165 Non member \$185 Student \$130

Seminar only member \$80 Seminar only non member \$100 Seminar only – Student \$65 Dinner only \$90 You can book your own accommodation direct with the venue - Mention the AusIMM Geoscience Forum 2023 to get access to rooms held for this event.

Accommodation

Please book direct and mention AusIMM Geoscience Forum. We have pencilled in a block booking-rooms will be held till Oct 15th then released.

Room Type	Room Rate (per night)
Budget Double	\$120
Standard Double	\$130
Standard Queen	\$140
Premium Queen	\$150
Lakeview Queen	\$150

Rates quoted are per night.

*We have been notified by the host, that the cost of accommodation will be refunded if this event is cancelled due to Covid and 24 hours notice is given.

Tullah Lakeside Lodge 0364734121, email info@tullahlakesidelodge.com.au

www.tullahlakesidelodge.com.au

Other room configurations are available via direct contact with the venue.

Covid-19 Notice

The venue Seminar room is large enough to seat up to 100 guests under current COVID-19 rules. This event is planned on the basis that the current COVID-19 rules still apply in December.

Thank you for your interest in Geobash 2023 on behalf of the organising committee. John Stanton

email john.stanton@epiroc.com

This event is co-hosted by









Sponsors







Ron Gregory Prospecting